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| Utkarsh Dixit  Python Developer | |
| |  |  | | --- | --- | |  | About me I am a passionate Python Developer with over three years of experience in building efficient, secure, and user-friendly web applications. With a strong foundation in backend development using Flask and Django, I have created scalable tools and automation systems that simplify complex workflows. My approach is detail-oriented, problem-solving focused, and driven by continuous learning. I take pride in delivering high-quality solutions that align with business needs and enhance user experience across diverse domains such as aerospace, data validation, and reporting systems. |  |  |  | | --- | --- | |  | Professional Summary Dynamic Python Developer with over 3 years of experience in crafting scalable web applications and automation tools, significantly enhancing operational efficiency. Expertise in full-stack development using Python frameworks such as Flask and Django drives the ability to deliver tailored solutions that meet client-specific needs. A strong collaborator, adept at gathering requirements and mentoring teams, while ensuring rigorous testing and maintainability of code. Ready to leverage innovative problem-solving skills to contribute impactful solutions in a forward-thinking environment. |  |  |  | | --- | --- | |  | Employment HistoryPython Developer at Tata Consultancy Services, Noida November 2021 — Present   * Spearheaded development of scalable backend systems and document automation tools across various aerospace and enterprise-grade applications. * Contributed to multiple full-stack Python-based projects using Flask and Django, with a focus on automation, validation, and secure deployment. * Demonstrated expertise in requirements gathering, rapid prototyping, rigorous testing, and iterative development to support critical business operations. * Actively collaborated with cross-functional teams and stakeholders to deploy high-impact tools tailored to client-specific workflows and compliance needs. * Mentored junior developers and contributed to codebase refactoring and technical documentation to support long-term maintainability and scalability. |  |  |  | | --- | --- | |  | ProjectsPre-Tech Check Application, Tata Consultancy Services  * Developed a single-page Flask application for validating document compliance based on predefined structural and informational standards. * Enabled users to select document types from multiple categories and upload relevant files for automated analysis. * Designed and implemented validation logic to detect missing or improperly structured content according to organizational policies. * Built a flexible and scalable validation engine capable of adapting to evolving documentation guidelines with minimal reconfiguration. * Streamlined internal document review workflows by significantly reducing manual verification effort.  Error Report and Calibration certificate, Tata Consultancy Services  * Requirements Gathering and Analysis: Collaborated with stakeholders to understand tool requirements, including the need for automated data extraction, error reporting, and calibration certificate generation. * Data Processing and Standardization: Developed processes for extracting and normalizing data from self-test and temperature files, ensuring accuracy and consistency across reports. * Report and Certificate Generation: Implemented automated generation of HTML error reports and calibration certificates, incorporating both self-test results and temperature validation data. * Visual Data Representation: Designed and integrated graphical and tabular representations of test outcomes, enhancing result interpretation and user verification. * Quality Assurance: Conducted rigorous testing to verify data accuracy, validate temperature ranges, and ensure reliability of the automated reporting system. * Process Optimization: Focused on reducing human error and improving overall process efficiency by automating repetitive tasks and standardizing data formats. * Documentation and Training: Created comprehensive documentation for the tool and provided training to users on interpreting reports and using the tool effectively.  Engine External Database Portal, Tata Consultancy Services  * Dashboard with Key Features: The application provides a dashboard with options to view, filter, and compare STL files, facilitating user interaction. * SQLite3 Database Integration: File names and metadata for the STL files are stored in an SQLite3 database, ensuring efficient data retrieval for the dashboard and filtering functionalities. * Dynamic Filtering System: Users can apply filters like weight, height (with range), width (with range), material, shape, and tags. Results are dynamically fetched and displayed using the SQLite3 database. * 3D Viewing Module: Selected STL files can be opened in a 3D viewer with interactive features, including rotate, zoom, and pan, for a detailed visual analysis. * Comprehensive File Comparison: Users can compare multiple STL files to analyze dimensions, volume, material, and shape differences, leveraging the database for faster comparisons.  Timing and memory report Generation, Tata Consultancy Services  * Requirement Analysis: Identified key pain points in the Timing and Memory Report (TMR) generation process, focusing on areas most prone to human error and inefficiency. * Tool Design and Development: Designed and developed eight specialized tools within the suite to automate complex calculations, data retrieval, and report generation tasks. * Process Optimization: Streamlined workflows to reduce manual steps, improving overall efficiency and reducing report generation time by 23%. * Testing and Validation: Conducted rigorous testing to ensure accuracy and reliability of automated processes, meeting safety-critical system standards. * User Training and Support: Trained end users on tool usage and provided ongoing support to ensure smooth integration into existing workflows. * Continuous Improvement: Collected user feedback and iterated on tool features to enhance functionality and usability.  Auto TestCase Generator, Tata Consultancy Services  * The solution was created using Flask for API interactions, ensuring a lightweight and fully offline deployment. It processes aerospace requirements to generate test cases securely without internet dependencies. * Leveraged Hugging Face Transformers, PyTorch, and TensorFlow to train and fine-tune NLP models for specialized test case generation. These models were optimized to handle domain-specific aerospace requirements efficiently. * Preprocessed data using Pandas and SQLite with robust disk encryption, ensuring secure storage and compliance with sensitive aerospace data standards. * Enhanced model inference speed using GPU acceleration with CUDA, allowing faster processing of large datasets. Version control with DVC and Git-LFS ensured reproducibility and streamlined updates to models and datasets. |  |  |  | | --- | --- | |  | EducationB.Tech, Hindustan College of Science and Technology, Mathura August 2017 — July 2021 12th, Saraswati Vidhya Mandir sr. sec. school, Agra March 2016 — March 2017 10th, Saraswati vidhya Mandir Sr. SEC. School, Agra March 2014 — March 2015 | |  | Details A-559 Trans Yamuna Colony, Rambagh, Agra, India, 9412162414  [utkarshdixitcs17@gmail.com](mailto:utkarshdixitcs17@gmail.com) Skills  |  |  | | --- | --- | | Python | | |  |  |  |  |  | | --- | --- | | Full Stack Development | | |  |  |  |  |  | | --- | --- | | Flask | | |  |  |  |  |  | | --- | --- | | Django | | |  |  |  |  |  | | --- | --- | | JavaScript | | |  |  |  |  |  | | --- | --- | | Web Applications | | |  |  |  |  |  | | --- | --- | | Backend Development | | |  |  |  |  |  | | --- | --- | | Database Management | | |  |  |  |  |  | | --- | --- | | Problem-solving | | |  |  |  |  |  | | --- | --- | | Bootstrap | | |  |  | |